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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
LAVARIAS, ARNEL C	
ART UNIT	PAPER NUMBER
2872	

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/788,316	LEWIS ET AL.	
	Examiner	Art Unit	
	Arnel C. Lavarias	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1/27/05,12/27/04,12/20/04*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23,25,26,28-31,33-38,40-58 and 64* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23,25,26,28-31,33-38,40-58 and 64* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 January 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on 12/20/04, 12/27/04, and 1/27/05 have been entered.

Drawings

2. The drawings were received on 12/20/04. These drawings were objected to for the following reasons as previously set forth in the Office Action dated 1/5/05.

3. The drawings were received on 1/27/05. These drawings are acceptable.

Response to Amendment

4. The amendments to the specification of the disclosure to correct the incorporation by reference to U.S. Application No. 09/345,672 in the submission dated 12/20/04 and 12/27/04 are acknowledged. These amendments, however, do not overcome the objections to the specification in Section 8 of the Office Action dated 11/12/03 for the following reasons as set forth below.

5. With respect to the above amendments to correct the incorporation by reference, it is first noted that, based on the filing date of the instant application, the applicable sections in the MPEP, 8th Edition, May 2004 revision, regarding incorporation by reference of essential and non-essential subject matter are MPEP 2163.07(b), 608.01(p), and 103, as well as 37 CFR 1.14. It is further noted that the instant application is not subject to the recent rules changes with regard to incorporation by reference as set forth in 37 CFR 1.57(b)-(g) (See 1287 OG 67, October 12, 2004). The above amendments made to the specification to include the essential subject matter incorporated by reference on lines 7-10 on Page 12 of the original specification are objected to because 1) Applicants did not provide an affidavit or declaration executed by the Applicants, or a practitioner representing the Applicants, stating that the amendatory material consists of the same material incorporated by reference in the referencing application, and 2) by amending the specification to include the essential subject matter, the incorporation by reference is now drawn to non-essential subject matter, and a review of PTO records reveals no evidence of common assignment or co-ownership between the instant application and the 09/345,672 application being referenced. Thus, both the objections to the amendments to correct the incorporation by reference and the objections to the incorporation by reference as set forth below may be overcome by:

a. Submission of an affidavit or declaration executed by the Applicants, or a practitioner representing the Applicants, stating that the amendatory material consists of the same material incorporated by reference in the referencing application; and deletion of the incorporation by reference statement (i.e. lines 7-

10 on Page 12 of the original specification) since this statement now no longer appears to be necessary, or

b. Submission of an affidavit or declaration executed by the Applicants, or a practitioner representing the Applicants, stating that the amendatory material consists of the same material incorporated by reference in the referencing application; and submission of evidence showing common assignment or co-ownership between the instant application and the 09/345,672 application being referenced if the statement of incorporation by reference is not removed.

6. The amendments to Claims 1, 41, and 58 in the submission dated 12/20/04 are acknowledged and accepted.

7. The cancellation of Claims 24, 27, and 32 in the submission dated 12/20/04 is acknowledged and accepted.

Response to Arguments

8. The Applicants' arguments with respect to newly amended Claims 1, 41, and 58 have been considered but are moot in view of the new ground(s) of rejection.

9. Claims 1-23, 25-26, 28-31, 33-38, 40-58, and 64 are now rejected as follows.

Specification

10. The attempt to incorporate non-essential subject matter into this application by reference to U.S. Application No. 09/345,672 is improper because Applicants have not

provided sufficient evidence of common assignment or co-ownership between the instant application and the 09/345,672 application. See MPEP 608.01(p).

11. The amendments filed 12/20/04 and 12/27/04 are objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:
All amendments to the specification on Pages 2-8 of the submission dated 12/20/04.
All amendments to the specification on Pages 2-7 of the submission dated 12/27/04.
Applicants may overcome this objection by 1) canceling the new matter in the reply to this Office Action, or 2) performing the actions as set forth above in either Section 5a or 5b in reply to this Office Action.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 1-6, 9-10, 15, 22-23, 28, 30-31, 33, 41-49, 58, 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kley et al. (U.S. Patent No. 6172743), of record, in view of Erickson (U.S. Patent No. 5440388).

Kley et al. discloses a spectrometer and spectrometry method (See for example Figures 1-5), the spectrometer and method both comprising an array of illumination

sources, such as semiconductor-based sources or LED's (See 2, 3A, 3B in Figure 1; col. 4, line 65-col. 6, line 11; col. 9, line 65-col. 10, line 20), positioned to differently illuminate different parts of a detection area (See 6 in Figure 1) by directing a plurality of differently directed beams of light including energy at different wavelengths (See for example col. 2, lines 26-42) toward the detection area from different illumination source positions; an image detector (See 8 in Figure 1) positioned to receive light from the sources reflected (See col. 12, lines 41-55) off of the different parts of a sample surface in the detection area; and a spectroscopic signal output (See 8, 7, 9 in Figure 1) responsive to relative amounts of light from the different ones of the plurality of beams in different spectral regions received by the detector after reflection off of the different parts of the sample surface in the detection area (See col. 8, line 50-col. 10, line 20) and operative to convey two-dimensional information (See col. 7, lines 30-40), for example at different wavelengths of the source. Kley et al additionally discloses a curved reflector for collimating the light from the sources (See 1 in Figure 1; col. 8, lines 50-56); the sources (See 3A, 3B in Figure 1) illuminating the sample with at least a first beam and a second beam at the same time (See col. 9, lines 8-38); the beam also being concentrated by focusing (See for example col. 5, line 1-9; col. 5, lines 43-55); the sources being of a same type (See for example 3A, 3B in Figure 1, which are both LED's); the sources being broadband (See col. 5, line 1-col. 6, line 11); a plurality of narrow-band dielectric filter elements located in an optical output path of at least one of the sources (See 4A, 4B, 5A, 5B in Figure 1; col. 5, lines 29-42). Kley et al. also discloses at least a first spectrally selective element and at least a second spectrally selective element (See 4A, 4B, 5A, 5B

in Figure 1; 17A, 17B, 5A, 5B in Figure 2), the first having a different spectral response than the second, both being located in the optical path between one of the illumination sources and the detector, both being connected to switched outputs, and both having different spectral responses that correspond to different absorption bands of a predetermined substance (See col. 8, line 50-col. 10, line 20). Kley et al. also discloses a switching array having a plurality of switched outputs that are each operatively connected to an input of at least one of the illumination sources (See 10, 13 in Figure 1; col. 8, line 50-col. 9, line 38). The switching array is operative to define an intensity level (such as on and off) for one or more of the sources by determining an illumination time period for the one of the sources relative to an illumination time period for another of the sources. Kley et al. also discloses the illumination sources being positioned to illuminate different sub-areas of the detection area and a first portion of the beams overlapping within the sample area (See Figure 1). The Examiner notes that light from each source 2, 3A, 3B of Figure 1 will overlap each other and illuminate a different portion of the detection area (i.e. the finger 6 in Figure 1). The combined illumination of the sources will fully illuminate the finger.

Kley et al. discloses the invention as set forth above, except for the sources being infrared sources and the detector being a two-dimensional, multi-element infrared image detector, wherein the spectroscopic signal output is operative to convey two-dimensional spatial information about chemical properties of the sample surface based on the relative amounts of infrared light from the different beams received by the detector after reflection off of the different parts of the sample surface. However, the use of infrared

illumination sources and two-dimensional infrared detection arrays are well known in the art for chemical and spectroscopic imaging applications. For example, Erickson teaches a conventional chemical analysis and imaging system (See for example Figure 2), wherein an array of infrared illumination sources, the various sources in the array possibly having different infrared wavelengths, is used to generate incident infrared light onto a sample (See 10 in Figure 2; col. 1, lines 20-32; col. 13, line 52-col. 14, line 61; col. 17, line 14-col. 18, line 22). The infrared light either transmitted or reflected from the sample surface (See 15 in Figure 2) is detected by a two dimensional array of infrared detectors, producing two-dimensional spatial information about chemical properties of the sample surface (See 12 in Figure 2; col. 7, line 54-col. 8, line 29; col. col. 10, line 34-col. 11, line 18; col. 15, line 45-col. 16, line 12). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the sources be infrared sources and the detector be a two-dimensional multi-element infrared image detector, wherein the spectroscopic signal output is operative to convey two-dimensional spatial information about chemical properties of the sample surface based on the relative amounts of infrared light from the different beams received by the detector after reflection off of the different parts of the sample surface, as taught by Erickson, in the spectrometer and method of Kley et al., 1) to take advantage of inexpensive and highly available sources and detector which operate in the 'biological window' of typical biological samples, and 2) to take advantage of time multiplexing of the acquisition of data, since no rastering is required, and multiple data at multiple locations are acquired at

the same time (this effectively reduces the amount of time required to obtain thousands of data points at multiple locations on a sample).

14. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kley et al. in view of Erickson as applied to Claims 1-2 above, and further in view of Fateley '086 (U.S. Patent No. 5257086), of record.

Kley et al. in view of Erickson discloses the invention as set forth above in Claims 1-2, except for the apparatus further including sequence logic operative to cause the switching array to switch the sources in a sequence of overlapping spatial patterns, such as a Hadamard sequence. However, Fateley '086 teaches an optical spectrophotometer that includes an array of light emitting diodes (LED's) for illuminating a sample (See Figures 1-2). In particular, the apparatus includes a switching array having a plurality of switched outputs that are each operatively connected to an input of at least one of the illumination sources (See 20 in Figure 1; 108, 110 in Figure 2). The switching array is operative to define an intensity level (such as on and off) for one or more of the sources by determining an illumination time period for the one of the sources relative to an illumination time period for another of the sources. Fateley '086 additionally discloses sequencing logic operative to cause the switching array to switch the sources in a Hadamard sequence. See col. 4, lines 7-30; col. 5, lines 11-55. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the apparatus of Kley et al. further include sequence logic operative to cause the switching array to switch the sources in a sequence of overlapping spatial patterns, such as a Hadamard sequence, as taught by Fateley '086, take advantage of the multiplexing

advantage gained by utilizing intensity masking encoded by a Hadamard sequence (See col. 1, lines 26-45; col. 5, line 56-col. 6, line 33).

15. Claims 14, 16-21, 25-26, 29, 40, 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kley et al. in view of Erickson.

With respect to Claims 14, 40, 57, Kley et al. in view of Erickson discloses the invention as set forth above in Claims 1 and 41, except for the sources being substantially the same. It is well known in the art to utilize multiple sources that are exactly the same to increase the amount of light flux incident on the sample. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the sources be substantially the same for the purpose of increasing the amount of light incident on the sample, and hence increase the signal-to-noise ratio of the measurement system.

With regard to Claims 16-19, Kley et al. in view of Erickson discloses the invention as set forth above in Claim 1. Kley et al. further discloses placing the sources near the detection area (See Figure 1 of Kley et al.). Kley et al. in view of Erickson lacks the spectrometer being either a microscopic or macroscopic instrument producing luminous flux of at most 10 millilumens to 1 lumen or the sources being placed within 1 cm of the detection area. The Examiner notes that the above limitations serve to adjust the luminous flux incident on the sample. Having the spectrometer be either a microscopic or macroscopic instrument producing luminous flux of at most 10 millilumens to 1 lumen or the sources be placed within 1 cm of the detection area in the apparatus are merely that of preferred embodiments, and that no criticality has been disclosed in the specification

of the disclosure. The reasons for having the spectrometer be either a microscopic or macroscopic instrument producing luminous flux of at most 10 millilumens to 1 lumen or the sources be placed within 1 cm of the detection area are given for example on Pages 3 and 11 of the specification of the disclosure. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the spectrometer be either a microscopic or macroscopic instrument producing luminous flux of at most 10 millilumens to 1 lumen or the sources be placed within 1 cm of the detection area, since one skilled in the art would have known to 1) design the size of the instrument appropriately based on optical performance and cost, 2) design the optical portion of the instrument to provide the appropriate amount of light onto the sample at the detection area, and 3) adjust the mechanical layout of the instrument such that the sources are within 1 cm of the detection area, all these based on optical performance, cost, and intended use of the instrument.

With regard to Claims 20-21, 29, Kley et al. in view of Erickson discloses the invention as set forth above in Claim 1, except for the sources having supply voltages of less than 5-12 volts or the sources being connected to a single power supply. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the sources have supply voltages of less than 5-12 volts or the sources being connected to a single power supply, since one skilled in the art would know that typical driving voltages for illumination sources, such as LED's, laser diodes, and incandescent lamps, are in the range of 5-12 volts, and that one would drive a number of

such sources with a single power supply to reduce the cost and complexity of the voltage/power supplying system.

With regard to Claims 25-26, Kley et al. in view of Erickson discloses the invention as set forth above in Claim 1, except for the sources being, for example, incandescent sources or narrow-band sources. However, the use of incandescent sources (e.g. quartz-tungsten-halogen bulb), or narrow-band sources (e.g. Nd:YAG laser) in the apparatus is merely that of a preferred embodiment. No criticality for the use of such sources has been disclosed in the specification of the disclosure, and that the reasons for the use of such sources are given for example on Pages 3 and 8 of the specification of the disclosure. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the sources be one of incandescent sources or narrow-band sources, since one skilled in the art would know to choose the appropriate light illumination sources based on requirements of wavelength, output power, and design considerations, such as cost, size and weight.

16. Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kley et al. in view of Erickson as applied to Claim 1 above, and further in view of Henderson et al. (U.S. Patent No. 3910701), of record.

With regard to Claims 34-35, Kley et al. in view of Erickson discloses the invention as set forth above in Claim 1, except for the apparatus further comprising a circular support for the array, wherein the detection area is located along a central axis of the circular support and wherein the support surrounds an optical path from the detection area to the detector. However, Henderson et al. teaches a method and apparatus for spectroscopic

measurements (See for example Figures 2-3, 5-6), wherein a plurality of light sources (See for example 16a, 17c in Figure 3), such as LED's, is mounted on a circular support (See 13 in Figure 3; 15 in Figure 5), and the detection area (See 21 in Figure 3; 112 in Figure 5) is located along a central axis of the circular support, which surrounds an optical path from the detection area to the detector (See for example 18 in Figure 3; 106 in Figure 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the detection area is located along a central axis of the circular support and wherein the support surrounds an optical path from the detection area to the detector, as taught by Henderson et al., in the apparatus of Kley et al. in view of Erickson, for the purpose of rigidly supporting the plurality of light sources, while reducing the size and weight of the system.

With regard to Claim 36, Kley et al. in view of Erickson, and further in view of Henderson et al. discloses the invention as set forth above, except for the detector being a part of a microscope. Having the detector be a part of a microscope is merely a recitation of a preferred embodiment, and no criticality has been cited for having the detector be a part of a microscope. The reasons for having the detector be a part of a microscope are given for example on Pages 3 and 10-11 of the specification of the disclosure. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the detector be a part of a microscope to reduce the size, weight, and cost of the optical system, since the microscope and the spectrometer are now integrated onto a single device.

17. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kley et al. in view of Erickson as applied to Claim 1 above, and further in view of Malin et al. (U.S. Patent No. 6236047), of record.

Kley et al. in view of Erickson discloses the invention as set forth above in Claim 1, except for the detector including a plurality of detector elements, such as a linear detector array, wherein the detection area is divided into a plurality of detection sub-areas, and wherein each of the detector elements is aligned with one of the detection sub-areas. However, Malin et al. teaches an apparatus for determining the concentration of an analyte present in a sample (See Figures 1A, 1B) as set forth above. In particular, Malin et al. teaches using an array of detector (See 18B in Figure 1B; 60 in Figure 2A, 2B). Additionally, it is well-known in the art of optical spectroscopy to divide the detection area/sample into small regions which are aligned with detector array elements designed to detect emission only from those regions, i.e. spatial or hyperspectral imagery (See for example Erickson). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the detector include a plurality of detector elements, such as a linear detector array, wherein the detection area is divided into a plurality of detection sub-areas, and wherein each of the detector elements is aligned with one of the detection sub-areas, as taught by Malin et al., in the spectrometer of Kley et al. in view of Erickson, for the purpose of providing spectroscopic measurement information based on location on the sample.

18. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kley et al. in view of Erickson as applied to Claims 1 and 9 above, and further in view of Bengtsson (U.S. Patent No. 6078390), of record.

With regard to Claim 11, Kley et al. in view of Erickson discloses the invention as set forth above in Claims 1 and 9, except for the selective elements being reflectors. However, Bengtsson teaches the use of reflective selective elements, such as dichroic beam splitters and wavelength-specific mirrors (See 22, 24 in Figure 1) in spectroscopic apparatus for identifying chemical species from fluorescence. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the selective elements be reflectors, as taught by Bengtsson, in the spectrometer of Kley et al. in view of Erickson, for the purpose of improving the signal-to-noise ratio of the system, as well as reducing instrumentation noise, by filtering out unnecessary wavelengths of light.

Additionally, with regard to Claims 12-13, Kley et al. in view of Erickson, and further in view of Bengtsson discloses the invention as set forth above, except for the reflectors being generally either parabolic or ellipsoidal. It is noted that the shape of the reflectors, whether planar, parabolic, ellipsoidal, or other non-standard shapes, is dictated by the optical design of the spectroscopic apparatus, and the choice of using a particular shaped reflector is dependent on whether the incoming light is required to be focused, collimated, or dispersed as the light is reflected off the surface. Therefore, it would have been well within the skill of worker in the art to have the reflector be parabolic or ellipsoidal for the purpose of reducing the number of optical elements required, since

such reflectors additionally perform collimating and focusing functions, as well as light-reflecting functions.

19. Claims 37, 50-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kley et al. in view of Erickson as applied to Claims 1, 41 above, and further in view of Miller et al. (U.S. Patent No. 6373568), of record.

Kley et al. in view of Erickson discloses the invention as set forth above in Claims 1, 41, except for a spectral matching module responsive to the spectroscopic signal output and operative to perform spectral matching operations with one or more known substances or samples, such as pharmaceuticals, pathological, or biological samples. It is well known in the art of optical spectroscopy to compare reference optical spectra to reference optical spectra for the purpose of identification. Additionally, Miller et al. teaches a spectral imaging system (See for example Figure 4a) utilizing a plurality of sources (See 1 in Figure 4a; 10a-j in Figure 1) wherein a computer and program (See 63, 64 in Figure 4a) are used to perform weighting function calculations on spectral information such that further collected spectral data can be compared with this information to identify the samples (See Abstract; col. 4, lines 14-27; col. 9, line 11-col. 10, line 34). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a spectral matching module responsive to the spectroscopic signal output and operative to perform spectral matching operations with one or more known substances or samples, such as pharmaceuticals, pathological, or biological samples, as taught by Miller et al., in the spectrometer of Kley et al. in view of

Erickson, for the purpose of providing automated, highly accurate means of sample identification.

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Arnel C. Lavarias
Patent Examiner
Group Art Unit 2872
4/11/05